

arbitrarily and their length may vary from c. 200-3500 m; Lindburg 1971, 350-2820 m; Neville 1968b; 200-400 m; the present study (1050-3500 m). A group always travels a longer distance than the actual straightline distance between two consecutive roosting sites. Factors which may determine the length of foraging routes are the availability of food and water, the season, the position of neighbouring groups, the group size, etc.

In spite of much overlap in the home range

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area, intergroup encounters are infrequent and usually group avoidance is noticed rather than fight. This situation was also observed by Southwick *et al.* (1965) and Lindburg (1971).

ACKNOWLEDGEMENTS

I am indebted to Prof. M. L. Roonwal, Jodhpur, for his keen interest and encouragement, to Prof. S. D. Singh for working facilities; and to Dr. S. M. Mohnot for assistance with literature.

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3. A NOTE ON THE BREEDING AND LONGEVITY OF THE INDIAN PANGOLIN (*MANIS CRASSICAUDATA*) IN CAPTIVITY

A pair of adult Indian Pangolins (*Manis crassicaudata*) was acquired for the Nandanakan Biological Park, Orissa. The female arrived on 16th July 1973 and the male arrived on 16th July 1976. They were housed in an enclosure measuring 2.5 × 1.5 × 2 m. high. Attached to the enclosure is a dark sleeping

den measuring 0.85 × 0.5 × 0.5 m high. They remain curled up throughout the day in the sleeping den and became active from late evening to early morning. They sometimes climb up a cement tree erected inside the enclosure. They are fed with red tree ants (adults, young and eggs) every evening at the rate of 600

gms per day per adult and occasionally some termites with combs.

A male young was born to the female of this pair on 7-4-1977 early morning but the young was found dead on 8-4-1977. The young measured 33 cm tip to tip including 12 cm long tail and weighed 242 g. The eyes were open and the scales were soft at birth. The mother Pangolin weighed 7.920 Kg and the male weighed 9.250 Kg on 10-4-1977.

The female Pangolin died on 1 December 1977 establishing a longevity of 4 years, 4 months and 16 days in captivity. The details of other five Indian Pangolins which have lived for over 1 year in the Park on a diet of red tree ants and termites are as follows.

tail and weighed 235 grams (Acharjyo and Misra, loc. cit.).

A Pangolin lived in captivity for 2 years (Prater, loc. cit.). According to Yadav (1973) Jaipur Zoo has reared Pangolins for a period of over six months. Out of three Indian Pangolins received at New York Zoological Park on 28 April 1961, one lived for 4 months, another for 7 months but the third one remained in good condition till late 1963 (Crandall 1965). Narayanan (1977) reports that one Pangolin survived for a little more than 2 years in captivity at USPHS—JIPMER Leprosy Research Project, Jawaharlal Institute of Post-graduate Medical Education and Research, Pondicherry.

Sl. No.	Date of arrival in the Park	Date of death in the Park	Period of survival in the Park
1	31-7-1972	3-12-1974	2 years, 4 months and 4 days.
2	3-11-1973	19-5-1976	2 years, 6 months and 17 days.
3	22-6-1976	26-12-1977	1 year, 6 months and 5 days.
4	16-7-1976	Living on the day of this report	Over 1 year and 8 months.
5	25-9-1976	Living on the day of this report	Over 1 year and 6 months.

There are records of birth of this species in India in July (Prater 1971) and November (Asdell 1964; Acharjyo and Misra 1972). The litter size is usually 1 and occasionally 2 (Asdell, loc. cit.). A new-born young measured 30 cm from tip to tip including 12.5 cm long

ACKNOWLEDGEMENTS

We wish to express our sincere gratitude to Shri G. M. Dash, I.F.S., Chief Wild Life Warden, Orissa and to Shri S. Jee, I.F.S., Chief Conservator of Forests, Orissa for their help and encouragement.

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4. THE BRONZEWINGED JACANA *METOPIDIUS INDICUS*
(LATHAM) IN SAURASHTRA AT JAMNAGAR

In a communication from Jamnagar, Saurashtra, Shri Lalsinhbhai Raol writes to report the first ever record of a Bronzewinged Jacana in the Saurashtra peninsula. He writes:

'There is a fairly big reservoir in Jamnagar City. Egrets, herons, storks, ibises, stilts, Red-wattled and Yellow-wattled Lapwings and wintering ducks and waders can be seen here.

On 6th March 1977 I noticed an unusual bird on a small islet in the lake. Examining it through field glasses I was thrilled to find a bird familiar from looking at the illustration in my "Sálim Ali", but an addition to my life-list.

If my memory of our notes compared does not fail me, this species is uncommon in mainland Gujarat, but has never been recorded from Saurashtra. Dharmakumarsinhji lists it in the supplement for Birds of Gujarat in his

book BIRDS OF SAURASHTRA, and does not include it in his Saurashtra bird descriptions.'

Sálim Ali & S. Dillon Ripley in the *HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN*, Vol. 2, say that the species is absent from western Punjab and western Rajasthan. However, there are records of this bird from Kutch (Humayun Abdulali, *JBNHS* 40: 122) seen at the Hemissar Tank in June 1937. Dr. Sálim Ali in *THE BIRDS OF KUTCH* (1945) describes its status in Kutch as "Resident (or local migrant?). Uncommon", and in 'The birds of Gujarat' (*JBNHS* 52: 413) states that though no specimens have been collected it has been noted at Bhuj (Kutch) also by Humayun Abdulali in June (*ibid.* 40: 122) and several places in Gujarat in vegetation-covered tanks and jheels, but that it is decidedly uncommon.

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